

ABSTRACT OF THE DISCLOSURE

A medical device known as an implantable neurostimulation system is configured for implanting in humans to deliver a therapeutic electrical stimulation to tissue to treat a variety of medical conditions such as pain, movement disorders, pelvic floor disorders, and many other conditions. The implantable neurostimulation has a housing, a power supply carried in the housing, stimulation electronics coupled to the battery and coupled to a neurostimulator connector block, a stimulation lead, and a lead extension. The lead extension is electrically coupleable between the neurostimulation connector block and the stimulation lead. The extension conductor is composed of an outer surface and an inner core. The outer surface has an outer impedance and the inner core has a core impedance that is substantially lower than the outer impedance. Many embodiments of the low impedance lead extension are possible.